with primary amines (N-term lysine in the presence of a nucleophile (i.e. CN^-) to form fluorescent isoindoles, dansyl dyes, fluorescamine and dabcyl chloride, 5-((((2-iodoacetyl)amino)ethyl)amino)naphthalene-1-sulfonic acid, long lifetime dyes comprised of metal-ligand complexes (MLC) which consist of a metal center (Ru, Re, Os) and organic or inorganic ligands complexed to the metal such as such as $[Ru(bpy)_3]^{2+}$ and $[Ru(bpy)_2(dcbpy)]$, and the like and derivatives thereof. The synthesis and structures of several dyes which may be used are described in U.S. Patents 5,248,782; 5,274,113; and, 5,187,288, the contents of which are incorporated herein by reference. Other light-emitting moieties used in labeling or other applications may be attached to the peptide. For example, suitable light-emitting moieties are described in *"Handbook of Fluorescent Probes and Research Chemicals – 5th Edition"* by Richard P. Haugland 1994; and "Design and Application of Indicator Dyes", *Noninvasive Techniques in Cell Biology*: 1-20 by Richard P. Haugland et al., Wiley-Liss Inc. (1990), the contents of each of which is incorporated herein by reference.

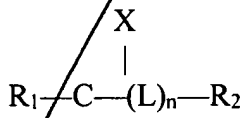
A marked up version of the amendments to the specification is enclosed herewith.

In the claims:

Please cancel claims 1, 3, and 10-27.

Please add claims 28 to 44 as follows:

28. A compound of the formula:



wherein R_1 is a light-emitting moiety and R_2 is a bombesin-like peptide, fragment,

derivative or analog thereof, wherein R_2 is comprised of Val-Pro-Leu-Pro-Ala-Gly-Gly-Gly-Thr-Val-Leu-Thr-Lys-Met-Tyr-Pro-Arg-Gly-Asn-His-Trp-Ala-Val-Gly-His-Leu-Met (SEQ ID NO:2), and L is a linker moiety,

wherein n is 1 or 0, and (C-X) is selected from the group consisting of C=O, C=S, CH(OH), C=C=O, C=NH, CH_2, CH(OR) DH(NR), CH(R), CR_3R_4, and $C(OR_3)OR_4$ where R, R_3, and R_4 are alkyl moieties or substituted alkyl moieties, and

wherein $(L)_n$—R_2 is linked to (C-X) at L or at an amino acid position selected such that the compound exhibits substantial biological activity in the presence of a receptor having affinity for bombesin-like peptides, wherein said compound exhibits substantial biological activity in the presence of a receptor having affinity for bombesin-like peptides.

29. The compound of claim 28, wherein n=0 and R_2 is directly attached to R_1.

30. The compound of claim 28, wherein n=0 and said amino acid position comprises the N-terminus of said bombesin-like peptide.

31. The compound of claim 29, wherein said N-terminus of said bombesin-like peptide is attached to (C-X) at αN-position.

32. The compound of claim 28, wherein said N-terminus amino acid residue is Val.

33. The compound of claim 28, wherein R_1 is bound, through C, to a region of said R_2 peptide which is not involved in said biological activity.

34. The compound of claim 28, wherein said R_2 peptide binds to a human receptor.

35. The compound of claim 1, wherein said light-emitting moiety is selected from the group consisting of 4,4-difluoro-4-bora-3a-diaza-s-indacene, fluorescein, FITC, Texas red, phycoerythrin, rhodamine, carboxytetra-methylrhodamine, indopyras dyes, Cascade blue, coumarins, NBD, Lucifer Yellow, propidium iodide, dinitrophenol (DNP), lanthanide cryptates, lanthanide chelates, non-fluorescent dialdehydes which react with primary amines to form fluorescent isoindoles, dansyl, fluorescamine and dabcyl chloride, 5-((((2-iodoacetyl) amino)ethyl)amino)naphthalene-1-sulfonic acid, long lifetime dyes comprised of metal-ligand complexes (MLC) and derivatives thereof.

36. The compound of claim 28, wherein (C-X) is selected from the group consisting of C=O and C=S.

37. The compound of claim 28, wherein said compound is a pharmaceutically acceptable salt or complex thereof.

38. A method for labeling a receptor having an affinity for a bombesin-like peptide by contacting said receptor with the compound of claim 28.

39. A method for generating a biologically active compound of claim 28, comprising:

reacting R_1 and R_2 in an aqueous solution to form a mixture comprising the compound of claim 1 and secondary compounds having biological activities less than 0.25% of the biological activity of R_2-H in the presence of a receptor having affinity for bombesin-like peptides;

contacting the mixture with a receptor for bombesin-like peptides; and

isolating from said mixture a light-emitting compound exhibiting substantial biological activity in the presence of said bombesin-like peptide receptor.

40. The method of claim 39, wherein said isolating step comprises:

releasing said light emitting compound from said bombesin-like peptide receptor; and

isolating said light-emitting compound.

41. The method of claim 40, wherein said step of isolating said light-emitting compound includes selection by high pressure liquid chromatography.

42. A method for imaging cell receptor sites comprising contacting candidate cell receptor sites with a compound of claim 28, and detecting said bound compounds as an indication of said cell receptor sites.

43. A method of cell sorting comprising contacting a population of candidate cells with a compound of claim 28, and isolating cells bound to said compound.